

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-15-152
Relating to Certification of New Motor Vehicles

NISSAN MOTOR CO., LTD.

Pursuant to the authority vested in the Air Resources Board by the Health and Safety Code, Division 26, Part 5, Chapter 2; and

Pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Orders G-45-3 and G-45-4;

IT IS ORDERED AND RESOLVED: That 1989 model-year Nissan Motor Co., Ltd. exhaust emission control systems are certified as described below for gasoline-powered light-duty trucks:

<u>Engine Family</u>	<u>Displacement Liters (Cubic Inches)</u>	<u>Exhaust Emission Control Systems (Special Features)</u>
KNS2.4T5HBC7	2.4 (145.8)	Air Injection - Valve Exhaust Gas Recirculation Oxygen Sensor Dual Bed Catalyst (Central Fuel Injection) (On-Board Diagnostics)

Vehicle models, transmissions, engine codes and evaporative emission control families are listed on attachments.

The following are the emission standards for this engine family:

<u>Loaded Vehicle Weight(lbs.)</u>	<u>Hydrocarbons (Grams per Mile)</u>	<u>Carbon Monoxide (Grams per Mile)</u>	<u>Nitrogen Oxides (Grams per Mile)</u>
0 - 3750	0.39	9.0	1.0

The following are the certification emission values for this engine family:

<u>Loaded Vehicle Weight(lbs.)</u>	<u>Hydrocarbons (Grams per Mile)</u>	<u>Carbon Monoxide (Grams per Mile)</u>	<u>Nitrogen Oxides (Grams per Mile)</u>
0 - 3750	0.26	2.6	0.6

BE IT FURTHER RESOLVED: That the listed models in the 0-3750 lbs. loaded vehicle weight class are certified to the optional NOx emission standard thereby making the vehicle manufacturer subject to Section 1960.1.5 of Title 13, California Administrative Code which includes recall liability for emission control components up to 7 years or 75,000 miles if found defective by the Executive Officer.

BE IT FURTHER RESOLVED: That the vehicle manufacturer is certifying the listed models in the 0-3750 lbs. loaded vehicle weight class to the optional NOx standard by providing evidence that there are sufficient projected sales of vehicles certifying to the primary NOx emission standard, or is allowed a delay in implementation under small volume manufacturer provisions, or is allowed a delay in implementation under the "In lieu" standards, or is certifying passenger cars weighing more than 5250 lbs. loaded vehicle weight.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Gasoline-Powered Motor Vehicles".

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's "Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks" (Title 13, California Administrative Code, Section 2290) for the aforementioned model-year.

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's high altitude requirements and highway emission standards as stipulated in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "California Motor Vehicle Tune-Up Label Specifications" (Title 13, California Administrative Code, Section 1965) for the aforementioned model year.


BE IT FURTHER RESOLVED: That the vehicle models listed also comply with the "Malfunction and Diagnostic System for 1988 and Subsequent Model Year[s]..." (Title 13, California Administrative Code, Section 1968) for the aforementioned model year.

BE IT FURTHER RESOLVED: That for the listed vehicles, the manufacturer has submitted and the Executive Officer hereby approves the materials to demonstrate certification compliance with the Board's emission control system warranty regulations (Title 13, California Administrative Code, Section 2035 et seq.) and for the listed vehicle models in the 0-3750 lbs. loaded vehicle weight class with the 2 year/24,000 mile warranty provisions of Health and Safety Code Section 43204.

Vehicles certified under this Executive Order must conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this order and attachment.

Executed at El Monte, California this 18th day of July, 1988.


K. D. Drachand, Chief
Mobile Source Division

#17.12.00-13

E.O. # A-15-152

17.12.00 1989 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Page 1

Manufacturer: NISSAN MOTOR CO., LTD. Engine Family: KNS2.4T5HBC7
Evaporative Family: TBI-1 Engine Type: In-line 4, OHC
Liters (CID): 2.4 (145.8)

ABBREVIATIONS

<u>Ignition System</u>	<u>Exhaust Emission Control System</u>	<u>Special Features</u>
CA-Centrifugal Advance	AIP-Air Injection-Pump	CCV-Combustion Chamber Valve
ECU-Electronic Control Unit	AIV-Air Injection-Valve	CFI-Central Fuel Injection or Throttle Body Injection
EI-Electronic Ignition	DBC-Dual Bed Catalyst	DID-Diesel Injection-Direct
ESAC-Electronic Spark Advance Control	EGR-Exhaust Gas Recirculation	DIP-Diesel Injection-Prechamber
VA-Vacuum Advance	OS-Oxygen Sensor	IC-Intercooler or Aftercooler
VR-Vacuum Retard	HOS-Heated Oxygen Sensor	EPFI-Electronic Port Fuel Injection
	EM-Engine Modification	MPFI-Mechanical Port Fuel Injection
	OC-Oxidation Catalyst	SFI-Sequential Fuel Injection
	SPL-Smoke Puff Limiter or Throttle Delay	TC-Turbocharger
	TOC-Trap Oxidizer, Continual	SC-Supercharger
	TOP-Trap Oxidizer, Periodical	OBD-On-Board Diagnostics
	EIC-Electronic Injection Control (Diesel Only)	
	TWC-Three-Way Catalyst	
	WUOC-Warm-Up Oxidation Catalyst	
	WUTWC-Warm-Up Three-Way Catalyst	
<u>Fuel System</u>		
CFI, SFI, HOS, OS, DIP, EPFI, MPFI, DID		
nV-nVenturi Carburetor		
VV-Variable Venturi Carburetor		

VEHICLE MODELS:

<u>Engine Code</u>	<u>Model</u>	<u>Transmission</u>
AZ24ICM3 -----	NISSAN E REGULAR BED 4X4	----- 5-speed Manual
BZ24ICM3 -----	NISSAN E REGULAR BED 4X4	----- 5-Speed Manual

Engine: Front X Mid. Rear

Drive : FWD RWD X 4WD Full Time 4WD Part Time X

Issue Date: 04/20/88
Revision Date:

#17.12.00-14

17.12.00 1989 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

E.O. # A-15-152

Page 2

Passenger Cars Light-Duty Trucks X Medium-Duty Vehicles Gas X Diesel

Manufacturer: NISSAN MOTOR CO., LTD. Engine Family: KNS2.4T5HBC7
 Litter (CID): 2.4 (145.8) Eng. Type: In-line 4, OHC
 Emission Control Sys. (Special Features): AIV/DBC/EGR/OS (CFI/OBD)

Engine Code	Vehicle Models (If Coded see attachment) (Dyno Hp)	Trans. Type	Equiv. Test Weight	Ign. System (ECU) Part No.	Fuel System Part No.	EGR Valve Part No	Catalyst *** Part No.
AZ24ICM3	NISSAN E REGULAR BED 4X4 (14.5)	M5	3750	Distributor D4P84-04 TOT80671	SPI Body Assem- bly RGA50-41	EGR Valve AEY76-88	D-xx,xJ D-xx,xK D-xx,xE
BZ24ICM3	NISSAN E REGULAR BED 4X4 (14.5)		3625	Control Unit MECS-G545	Control Unit MECS-G545		D-xx,xF

Comments: See page one for abbreviations and evaporative emission family identification. Please refer to manufacturer's HP list for correct dyno test HP settings based on model and equipment. If two test weights are listed, the lower weight will be used for testing.

***The figures and numbers in the place of the mark x are variable according to lot number and production date.

Issue Date: 04/20/88
 Revision Date:

1989 MODEL-YEAR CERTIFICATION REVIEW SHEET
EXHAUST/EVAPORATIVE SYSTEM & FILL PIPE SPECIFICATION COMPLIANCE

E.O. # A-15-152

Mf'r. NISSAN MOTOR CO., Ltd. Engine Family KNS2.4T5HBC7
 PC LDT X MDV Gas X Diesel LPG Cert.Type - CA X 49S 50S
 CID 145.8 Liters 2.4 Rated HP 108@ 4800 RPM Rated Torque 137lb-ft @ 2400 RPM
 Type Cert - 50K X 100K Evaporative Family TBI-1 Eng. Type L-4,OHC
 Exhaust Control Sys. and (Special Features) AIV/DBC/EGR/OS (CFI/OBD)

	Section/Page		Section/Page
1 Authorized Representative	: 01.02.02	13 Evap. Bench Test Procedure	: 05.00.00
2 Fuel, Test Equipment	: 03.00.00,	14 Gen. Std., Increase in Em.,	: 17.03.00
Procedures & Route	04.00.00,05.00.00	Safety, Mtg. All Req'ments.	
3 Warr. State & Parts List	: 17.08.00	15 Prod. Veh. Same as Test Veh.	: 17.03.00
4 Maint: Cert/Req'd/Recm'd	: 06.01.00/06.02.00	16 Label Durability	: 17.03.00
5 Tune-up Lab./Vac. Hose Diag.	: 07.00.00	17 Driveability	: 17.03.00
6 Evap. Control System	: 19.00.00	18 Fill Pipe Specs.	: 17.01.00
7 Engine Parameters	: 20.00.00	19 Altitude A/F Req'ment	: N.A.
8 Fuel/Ignition Systems	: 20.00.00	20 Tamperproof Req'ment	: 08.16.00
9 Exhaust Control System	: 20.00.00	21 Ck for DF, Outlier, Line Xing:	Yes
10 Projected Sales	: 17.09.00/17.10.00	22 EPA Certificate	:
11 Vehicle Descript.	: 20.00.00	23 Two yr./24K Warranty	: Yes
12 Test Veh. Information	Dur. /Ems.	24 Alcohol Compatible	: See Owner's manual
C/O MY or C/A EF	: JNS2.4T5HBC8/KNS2.4T5	25 Cert. Preview Program	: 17.05.00
Vehicle Logs	: 17.13.00 HBFX	26 OBD System	: 17.02.00
Zero Mile Books	: 17.13.00	27 OBD Extension	: 17.02.00
Maint. Log & Engr. Eval.	: 17.14.00,17.06.01		

PROJECTED EMISSIONS (1)												(2)
Veh. ID	Code (Displ)	Trans	Axle Ratio	ETW	RLHP	MPG City/Hwy	Test Loc.	NM-HC	CO	NOx	Hwy NOx	50K Evap or Part
SY141 (11)	AZ24IFM3 (145.8CID)	M5	4.375	3750	14.5	19.3/26.8	Mf'r	0.26	2.6	0.59	0.9	0.54

- (1) The emission data vehicle/s above comply with stds of 0.39 9.0 1.0 2.0 2.0
 and includes deterioration factors of 1.401 1.247 1.197 1.197 0.00
- (2) Evaporative DF is the average of Vehicle DF 0.01 and Bench DF 0.00
- (2) Trap Oxidizer: Yes No X Continual Periodic

Remarks :
 Application Processed by Duc Nguyen Date 07/14/88 Reviewed by RJ Kenny Date 7/14/88
no OBD testing